UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,197	03/01/2002	Ajay Kumar	5681-11800	8610

7590 11/18/2005		**EXAMINER**
Robert C. Kowert		HWANG, JOON H
Conley, Rose, & Tayon, P.C.		
P.O. Box 398		ART UNIT / PAPER NUMBER
Austin, TX 78767		2166

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 September 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11,15 and 17-20* is/are pending in the application.

  4a) Of the above claim(s) *2,10 and 16* is/are ~~withdrawn from consideration~~. *Canceled*

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,11,15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   The applicants amended claims 1, 8-9, 15, and 17-20 and canceled claims 2, 10,

and 16 in the amendment received on 9/1/05.

The pending claims are 1, 3-9, 11-15, and 17-20.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 8-9, and 15 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 15 and 17-20 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. "A tangible computer accessible

medium" in $1^{st} - 2^{nd}$ lines of claim 15 is insufficient to render the claim **tangibly**

embodied in a manner so as to be executable. Changing to "A computer readable

storage medium" is suggested to overcome 101 rejection. Since claims 17-20

incorporate the deficiency of claim 15 and do not add tangibility to the claimed subject

matter, they are likewise rejected.

Claim Rejections - 35 USC § 103

5.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

6.   Claims 1, 3-5, 8-9, 11-12, 15, and 17-18 are rejected under 35 U.S.C. 102(e) as

being anticipated by Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of

Bauer et al. (U.S. Patent No. 5,870,759).

        With respect to claim 1, Montero teaches a distributed store comprising a primary

state of session data configured for access by a plurality of application servers, wherein

the session data comprises a plurality attributes (i.e., a common session database, fig.

1, sections 18-19 on page 2, section 26 on pages 2 and 3, and section 35 on page 3).

Montero teaches a first application server of the plurality of application servers,

comprising a client state of the session data accessible to processes executing within

the application server, wherein the first application server is configured to track

accesses of the attributes of the client state (fig. 1, abstract, section 11 on page 1,

sections 14 and 20 on page 2, sections 35-36 on page 3, and sections 42 and 46 on

page 4). Montero teaches the distributed store configured to synchronize the primary

state with the client state according to the tracked accessed attributes (section 26 on

pages 2-3). Montero does not explicitly disclose the first application server is configured

to store information identifying the accessed attributes to track accesses of the

attributes of the client state. However, Bauer teaches a server is configured to track

accesses of data, wherein to track accesses of the data, the server is configured to

store information identifying the accessed data (i.e., an update log, line 61 in col. 3 thru

line 27 in col. 4, lines 48-59 in col. 9, and lines 52-59 in col. 1) in order to reduce

communication costs and delays in data synchronization. Therefore, based on Montero

in view of Bauer, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to utilize the teaching of Bauer to the system of Montero in

order to reduce communication costs and delays in data synchronization.

With respect to claim 3, Montero does not explicitly disclose tracking mutable

attributes and not tracking immutable attributes. However, Bauer teaches tracking

mutable data items and not tracking immutable data items (lines 53-60 in col. 3 and

lines 28-52 in col. 28). Therefore, the limitations of claim 3 are rejected in the analysis

of claim 1 above, and the claim is rejected on that basis.

The limitations of claim 4 are rejected in the analysis of claim 3 above, and the

claim is rejected on that basis.

With respect to claim 5, Montero teaches the distributed store is configured to

update the primary state with the subset of the accessed attributes that have been

modified for synchronizing the primary state with the client state (section 26 on pages 2-

3). Montero does not explicitly disclose performing a comparison of the tracked

accessed attributes and a benchmark of the session data comprising a previous version

of the one or more attributes. However, Bauer teaches performing a comparison of the

tracked accessed attributes and a benchmark (i.e., a before-image data) comprising a

previous version of the one or more attributes to determine a subset of the tracked

accessed attributes that are modified in respect to the benchmark (i.e., the before-

image data, line 50 in col. 1 thru line 2 in col. 3, lines 34-52 in col. 3, lines 27-67 in col.

9, and lines 1-11 in col. 10). Therefore, the limitations of claim 5 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claims 8-9, 11, 15, and 17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 12 and 18 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

7.   Claims 6, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759), and further in view of Morris (U.S. Patent No. 5,813,017).

With respect to claim 6, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 47-59 in col. 9). Montero and Bauer do not explicitly disclose a binary comparison. However, Morris discloses a binary comparison for determining differences for database synchronization (abstract and line 47 in col. 11 thru line 13 in col. 12). Therefore, based on Montero in view of Bauer, and further in view of Morris, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Morris to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 13 and 19 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.

8.   Claims 7, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S.

Patent No. 5,870,759), and further in view of Lin et al. (U.S. Patent No. 6,546,135).

With respect to claim 7, Montero and Bauer disclose the claimed subject matter

as discussed above. Bauer further discloses many other comparison methods for

determining modifications since a last synchronization (lines 42-53 in col. 9). Montero

and Bauer do not explicitly disclose an object graph comparison. However, Lin

discloses comparing data differences using DAG (directed acyclic graph)

representation, which teaches an object graph comparison (abstract, line 40 in col. 7

thru line 14 in col. 8, and fig. 5). Therefore, based on Montero in view of Bauer, and

further in view of Lin, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to utilize the teachings of Lin to the system of Montero

in order to determine differences of two versions of data, thereby performing an
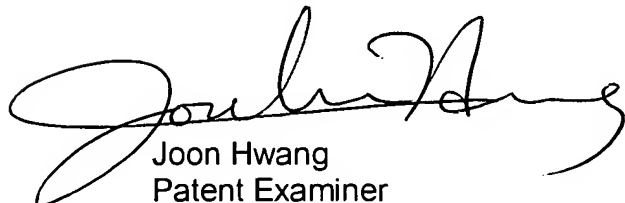
effective database synchronization.

The limitations of claims 14 and 20 are rejected in the analysis of claim 7 above,

and these claims are rejected on that basis.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joon H. Hwang whose telephone number is 571-272-

4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang
Patent Examiner
Technology Center 2100

11/10/05